



OFFICE OF RESEARCH AND DEVELOPMENT

National Homeland Security Research Center

ADVANCING OUR NATION'S SECURITY THROUGH SCIENCE

Response Capability Enhancement

The Response Capability Enhancement (RCE) program brings together a diverse group of engineers, scientists, and managers to provide technical assistance both in preparing for and responding to homeland security emergencies.

RCE's Mission

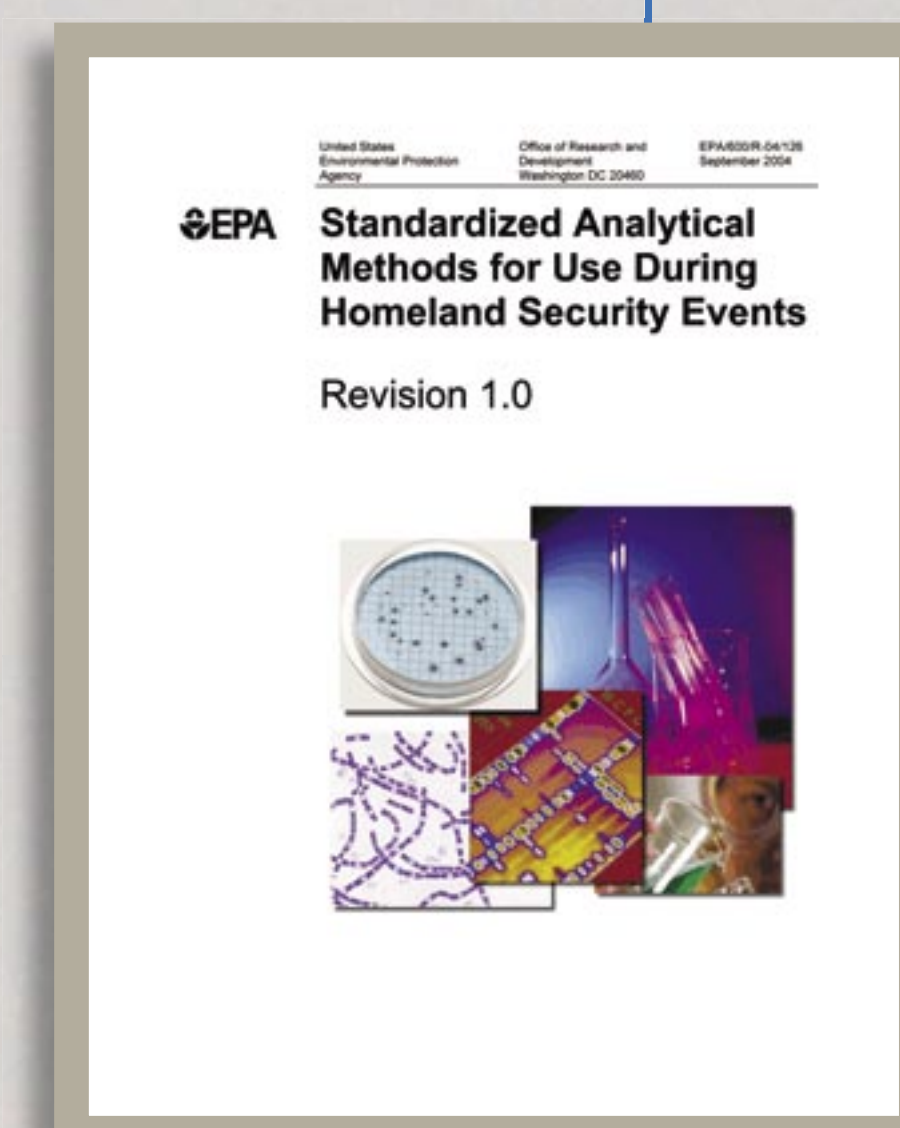
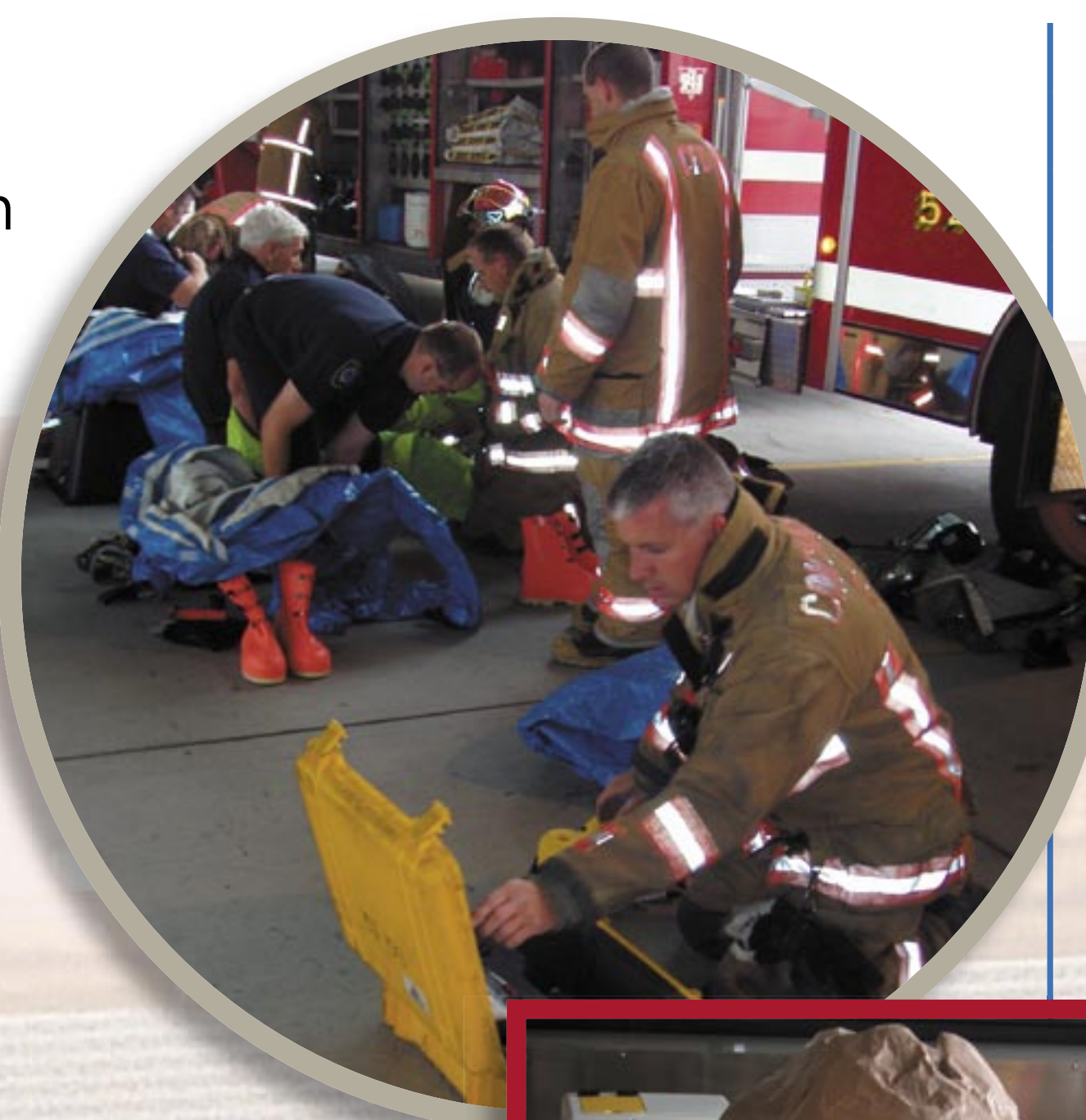
The Response Capability Enhancement program focuses on laboratory capabilities and emergency response support. Laboratory capabilities support involves developing standard analytical methods and practices for screening samples that may contain biological, chemical, or radiological agents, as well as providing technical support to link federal, state, and local environmental laboratories. Support for emergency responders includes providing training materials and developing help lines, databases, emergency response plans, and contingency planning playbooks for use in the event of a terrorist attack.

While RCE focuses on homeland security, its products and services can also be used to respond to accidental or unintentional releases of hazardous material.

Laboratory Capabilities Support

Laboratory capabilities support involves activities to ensure the availability of adequate laboratory capacity for analyzing biological, chemical, and radiologically contaminated samples during an emergency. RCE is also working to provide field analytical methods for characterizing samples sufficiently to ensure the protection of laboratory workers. Activities include:

- Providing surge capacity for biological sample analysis
- Developing plans and procedures for adding analytical capacity to the existing EPA Biosafety Level-3 (BSL-3) Laboratory
- Providing methods for field analysis in the All Hazards Receipt Facility (AHRF), enabling the early identification of contaminants and ensuring laboratory workers' safety
- Developing a compendium of standardized analytical methods (SAM) for use during homeland security events
- Preparing standardized analytical procedures for analytes listed in SAM
- Identifying and establishing screening methods for environmental media analytes
- Assisting in the development of the Environmental Laboratory Response Network (eLRN), a listing of laboratories capable of analyzing biological, chemical, or radiological samples
- Developing a standardized manual that describes field sample packaging and storage methods for homeland security related sampling activities



Emergency Response Support

Emergency response support includes the establishment of the Red Team, which plays a major role in RCE's emergency response support activities. The team consists of experts from various disciplines throughout EPA. Team members are equipped with emergency communication devices, including cellular telephones and portable computers. If activated by a homeland security emergency, this team moves to designated locations to provide scientific guidance to senior EPA officials and on-scene coordinators.

Additional emergency response support activities include:

- Developing a chemical and biological agent database that will become the foundation for a help line
- Ensuring that Red Team members receive training in emergency response and are equipped and prepared to respond if activated
- Generating contingency playbooks that address consequence management issues for major biological, chemical, and radiological threats

Key RCE Products

Planned or completed products include:

- Emergency response plans
- Virtual support library and 24-hour emergency response system
- Chemical and biological agents help line for emergency responders
- Database of experts available for a homeland security emergency
- Protocol for samples containing chemical, biological, or radiological agents
- Standardized analytical methods (SAM) for use during homeland security events
- Standardized analytical procedures for SAM analytes
- Contingency planning playbooks
- Fully equipped biocontainment suite for homeland security research
- Expanded BSL-3 Laboratory capacity in Cincinnati, Ohio
- Fully activated Environmental Laboratory Response Network
- Standardized manual of field sample handling and management procedures
- Screening methods for chemical, biological, and radiological contaminants



Stakeholders

Primary stakeholders include the EPA regions and program offices, commercial, local and state laboratories, emergency responders, and other federal agencies involved with emergency response.



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